

## Abstract

An ion source for an ion implanter is provided, comprising: (i) a sublimator (52) having a cavity (66) for receiving a source material (68) to be sublimated and for sublimating the source material; (ii) a gas injector (104) for injecting gas into the cavity (66); (iii) an ionization chamber (58) for ionizing the sublimated source material, the ionization chamber located remotely from the sublimator; and (iv) a feed tube (62) for connecting the sublimator (52) to the ionization chamber (58). The gas injected into the cavity may be either helium or hydrogen, and is designed to improve the heat transferability between walls (64) of the sublimator (52) and the source material (68).

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